Fig, 1: Topological view of a traditional file sharing system

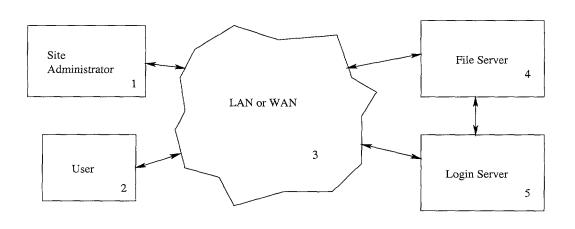


Fig. 2: Topological view of the ICQ member system

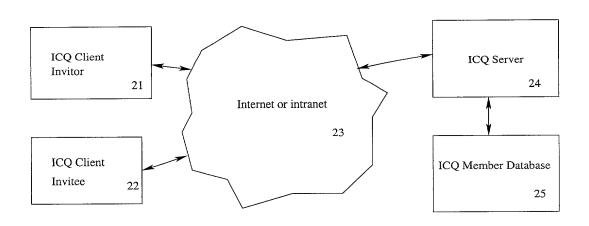
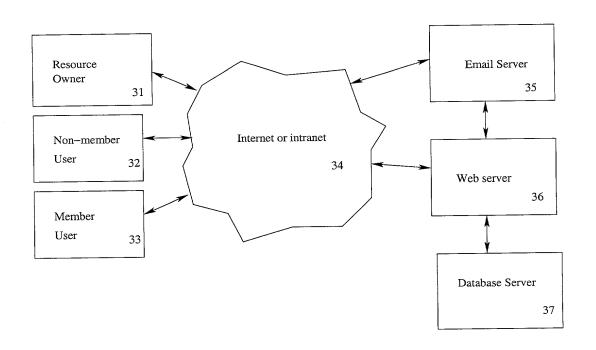


Figure 3: Topological view of the online photo community

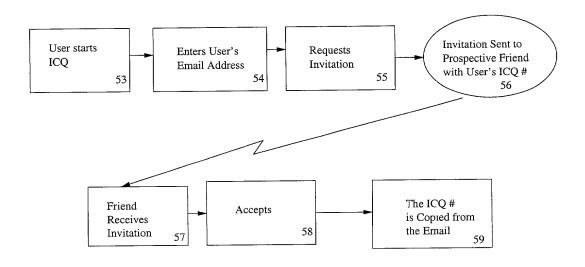


Start 41 Create Create User Trusted Group 45 43 Administrator Logs in 42 Destroy Destroy Group User 46 44 Set Group Select for Resource Group 50 47 Set Resource Permission Add User Remove User 51 to Group from Group 49

Fig. 4: State diagram of a trusted administrator group system

 $\sigma=\eta \rho$

Fig. 5: State diagram of the ICQ member system



61 Start Create Group Resource 65 Owner Logs in Select 62 Group 67 Destroy Group 66 Remove User from Group Set Group 69 for Resource 70 Invite User to Group Set Resource 68 Permission URL is 71 emailed Invite Database URL with updated with cookie group and created user User Receives Invitation URL with Cookie Non-member Fills Out User Clicks on Sign-up URL Information 76 77 Member User Clicks on 74 URL User is Added Member Logs In to Group 75

Fig. 6: State diagram of the online photo community

Member "dissident" logs in:



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Member "dissident" chooses My Groups from the navigation bar:

OMBANK

Send

6Your Expression 99 personalized greetings inc.

1

Items: 0 Price: CDN \$0.00

C)

Fig

O My Albums

My GroupsPreferences

@

Search

Visit a User
Usemame or E-mail





First Album (11)

hello (0)

Album



Jim's your uncle. (1)

These are photos from my Dad's birthday party at Keith's.

Album

Random (6)

FIG.8

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ij	1	

Member "dissident" chooses create group:

Mege-Flops 60

Member "dissident" names the group "sample group":

Create a New

Group

Name:

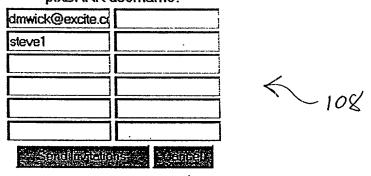
Fig. 9

Member "dissident" adds new members:

Add Members to Group:

sample group 📓

You can enter e-mail addresses or pixBANK usernames in the following fields. We will send e-mail to each of these people to invite them to join your group. Please double-check all of your addresses. Where possible, it is better to use the person's pixBANK username.



Note that both members who have signed up previously and non-members can be invited.

FIG. 10

The site emails off invitations. The group shows that there are 2 pending group members:



Group Members	Shared Albums	
Group "sample group" has no members. Invite New Members	☑ First Album ☑ hello ☑ Jim's your uncle. ☑ Random ☑ Travels	~

110

This group has 2 pending invitations

FIG. 11

Manage Invitations

To see which members have not yet joined, Manage Inivitations can display pending invitations and allow for re-requesting or blocking members that weren't requested:

Manage Group Invitations

☐ dmwick@excite.com

☐ steves

Selecteli Lenet Selenie Anviolone Recort Selecter Invitalists Cancell W 114

F16.12

THE RESERVE THE RESERVE THE PARTY OF THE PAR

Now non-member <u>dmwick@excite.com</u> receives an email:

Date: Thu, 08 Feb 2001 11:37:44 PST

From: "www-data" <www-data@opengraphics.com> [Add to

To: dmwick@excite.com
Subject: pixBANK Group Invitation

The pixBANK member 'dissident' has invited you to join one of his/her photo sharing groups. If you would like to join this group, please click on the following URL:

http://demo.pixbank.com/jg.php3?id=163_3c74bf8c

W116

If you are not interested, please just ignore this e-mail.

Thank you,
The pixBANK Robot

P.S. pixBANK is a website that facilitates on-line storage, sharing and professional-quality printing of your home photos. Please feel free to visit our site at http://demo.pixbank.com/ if this service interests you.

FIG. 13

Non-member dmwick@excite.com clicks on the link:



YOUR FEXORESSION !!

personalized presides in

Upload

Photo Gallery

About Us

Contact Us

Log Out

Help

User 'dissident' has invited you to join his/her 'sample group' photo-sharing group.

- If you are already a pixBANK member, you can join the group by logging in right now.
- If you are not yet a member, please sign up for a free membership. Your new account will automatically be added to the group.

Log In

Sign Up

N-118

FIG. 14

Items: 07 Price: CDN \$0.00



O My Albums

O My Groups

Preferences

Search

Visit a User Isemame or E-mail

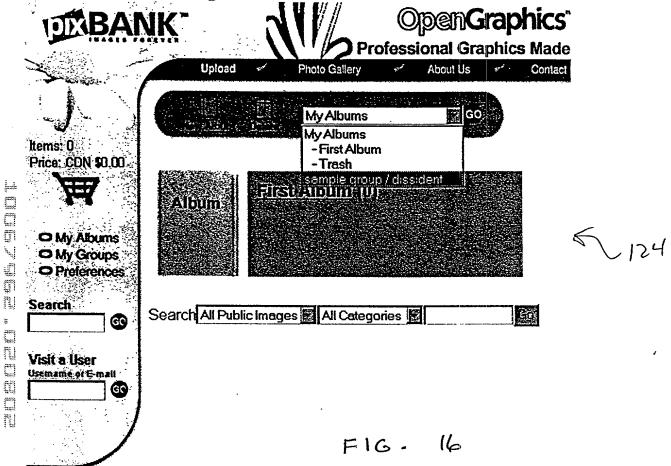
If the users had an existing users account but registered under a different email address, then the Log In option would make sense. But this user needs to create an account via Sign Up:

New User Information

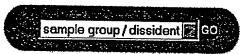
Usemame:	patent	*	
E-mail Address:	dmwick@excite.com	1= 122	
Password:	takakasaka	1	
Re-type password:	**********]*	20
=	iodic pixBANK update messages by e-mail.		
Sign Fig. Priva	acy Policy Terms of U	<u>.</u> <u>Jse</u>	

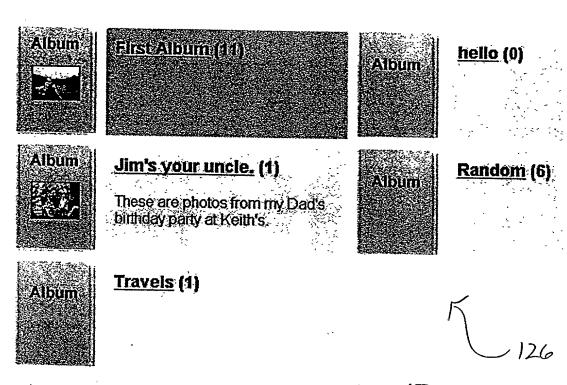
F16.15

The non-member dmwick@excite.com becomes member "patent". Member "patent" views the list of available albums and finds the snared albums from dissident available:



Member "patent" can access and use the albums that belong to the group called "sample group" owned by member "dissident"





F16. 17

Now that member "patent" has joined the group, member "dissident" sees a system message:



By choosing to view the system message, member "dissident" learns who has joined his or her group:

	System Messages	
patent has joined your group The pixBANK member 'patent' has accepted your invitation to join the group 'sample group'. They should now be able to view photos in any of this group's shared albums.		Feb 08 2001
्रावानांचा द्वावानांचा	Messages Campas	<u></u>

Member "dissident" now sees the new member in the group listing:



Group Members	Shared Albums
patent	☑ First Album ☑ hello ☑ Jim's your uncle. ☑ Random ☑ Travels

F16.19

K 130

This group has 1 pending invitation

Manage Invitations

Also there is still a pending invited membership for the group. Finally, member "dissident" can remove users that are no longer welcome:

Remove Group Members

Please select which members you would like to remove from group "sample group"

patent









F16.20